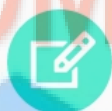
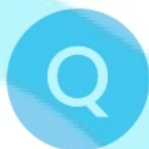


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QUIZZES

Practice Test-1(d-Block Elements)



10 Questions



7 min

Topics

General characteristics (All), Describe electronic structure of elements and ions of d-Block Elements

Start Quiz

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

06 : 58



1/10



7 min



Hint

Q : Which of the followings contains non-typical transition elements?

A

IB (Cu,Ag,Au)

B

IIB (Zn,Cd,Hg)

C

IIIB (Sc,Y,La)

D

both b & c

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 55



2/10



7 min



Hint

Q : f- block elements are called

A

inner transition

B

outer transition

C

lanthanides & actinides

D

both a & c

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 52



3/10



7 min



Hint

Q : Coinage metals are present in

A

IB (Cu,Ag,Au)

B

IIB (Zn,Cd,Hg)

C

IIIB (Sc,Y,La)

D

both b & c

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 49



4/10



7 min



Hint

Q : The stable states of an orbital are when it is

A

Half filled

B

completely filled

C

Empty

D

both a & b

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

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6

7

06 : 46



5/10



7 min



Hint

Q : Which group elements usually show single oxidation state.

A

IB

B

IIB

C

VB

D

VIB

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 44



6/10



7 min



Hint

Q : The number of unpaired electrons present in Cr^{3+} ion is/are:

A

1

B

3

C

2

D

4

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 41



7/10



7 min



Hint

Q : The number of unpaired electrons present in Cr^{6+} ion is



1



0



2



4

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10

06 : 38



8/10



7 min



Hint

Q : Copper in zero oxidation state has no partially filled d-orbital but still included in transition elements because

A

Its salts are coloured

B

In Cu^{+2} d-sub shell is partially filled

C

It shows variable oxidations state

D

It is a good conductor of heat and electricity

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

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10

06 : 35



9/10



7 min



Hint

Q : The ion that is iso-electronic with argon

A

Cr^{4+}

B

Sc^{3+}

C

Ti^{3+}

D

Mn^{2+}

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10

06 : 32



10/10



7 min



Hint

Q : Which one of the following ion has $3d^5$ subshell arrangement

A

Cr^{+3}

B

Fe^{+3}

C

Mn^{+3}

D

Co^{+3}

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

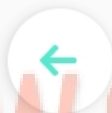
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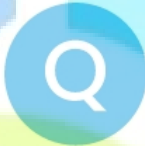
9

10



QUIZ RESULT

Practice Test-1(d-Block Elements)



10



7 min



01-May-2021



0 sec



0/10



0.0%

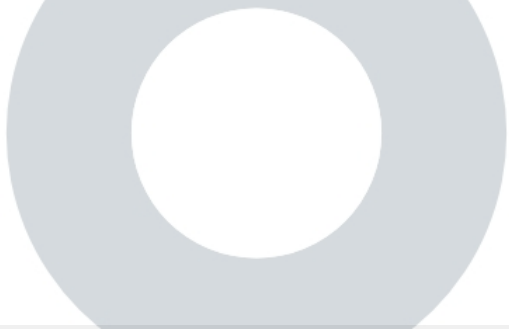
SAEED MDCAT

Result Detail

SAEED MDCAT TEAM



SAEEDMDCAT





Practice Test-1(d-Block Elements)



Correct



Unattempted



Incorrect



1/10

Q : Which of the followings contains non-typical transition elements?

A

IB (Cu,Ag,Au)

B

IIB (Zn,Cd,Hg)

C

IIIB (Sc,Y,La)

D

both b & c

Explanation

In tri+ve ions of group IIIB there are no. of electron is present in d-subshell

In IIB d-subshell is completely filled

1

2

3

4

5

6

7



Practice Test-1(d-Block Elements)



Correct



Unattempted



Incorrect



2/10

Q : f- block elements are called

A

inner transition

B

outer transition

C

lanthanides & actinides

D

both a & c

Explanation

f-block consist of Lanthanides (series starting with element Lanthanum) and Actinides (series starting with element Actinium)

1

2

3

4

5

6

7



Practice Test-1(d-Block Elements)



Correct



Unattempted



Incorrect



3/10

Q : Coinage metals are present in

A

IB (Cu,Ag,Au)

B

IIB (Zn,Cd,Hg)

C

IIIB (Sc,Y,La)

D

both b & c

Explanation

IB elements are called coinage metals



SAEEDMDCAT

1

2

3

4

5

6

7



Practice Test-1(d-Block Elements)



Correct



Unattempted



Incorrect



4/10

Q : The stable states of an orbital are when it is

A

Half filled

B

completely filled

C

Empty

D

both a & b

Explanation

Order of stability is

Completely filled > Half filled > Partially filled

1

2

3

4

5

6

7



Practice Test-1(d-Block Elements)



Correct



Unattempted



Incorrect



5/10

Q : Which group elements usually show single oxidation state.

A

IB

B

IIB

C

VB

D

VIB

Explanation

Explanation: General electronic configuration of IIB elements is $(n-1)d^{10}, ns^2$. this means they have completely filled d subshell and ns-subshell. They only show +2 oxidation state

1

2

3

4

5

6

7



Practice Test-1(d-Block Elements)



Correct



Unattempted



Incorrect



6/10

Q : The number of unpaired electrons present in Cr^{3+} ion is/are:

A

1

B

3

C

2

D

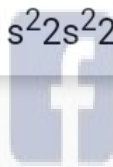
4

Explanation

SAEED MDCAT TEAM

it has 3 unpaired electrons, $_{24}\text{Cr} =$

$1s^2 2s^2 2p^6 3s^2 3p^6 4s^0 3d^3$



SAEEDMDCAT

1

2

3

4

5

6

7



Practice Test-1(d-Block Elements)



Correct



Unattempted



Incorrect



7/10

Q : The number of unpaired electrons present in Cr^{6+} ion is

A

1

B

0

C

2

D

4

Explanation

SAEED MDCAT TEAM

Explanation: ${}_{24}\text{Cr}^{6+} = 1s^2 2s^2 2p^6 3s^2 3p^6 4s^0 3d^0$



SAEEDMDCAT

1

2

3

4

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6

7



Practice Test-1(d-Block Elements)



Correct



Unattempted



Incorrect



8/10

Q : Copper in zero oxidation state has no partially filled d-orbital but still included in transition elements because

A

Its salts are coloured

B

In Cu^{+2} d-sub shell is partially filled

C

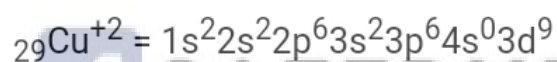
It shows variable oxidations state

D

It is a good conductor of heat and electricity

Explanation

SAEED MDCAT TEAM



SAEEDMDCAT



Practice Test-1(d-Block Elements)



Correct



Unattempted



Incorrect



9/10

Q : The ion that is iso-electronic with argon

A

Cr^{4+}

B

Sc^{3+}

C

Ti^{3+}

D

Mn^{2+}

Explanation

Argon has 18 electrons. Sc has 21. So, Sc^{3+} have 18 electrons left behind



SAEEDMDCAT

4

5

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7

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9

10



Practice Test-1(d-Block Elements)



Correct



Unattempted



Incorrect



10/10

Q : Which one of the following ion has $3d^5$ subshell arrangement



Cr^{+3}



Fe^{+3}



Mn^{+3}



Co^{+3}

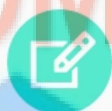
Explanation

SAEED MDCAT TEAM



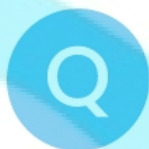
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QUIZZES

Practice Test-2(Transition Elements)



10 Questions



7 min

Topics

Chemistry of Transition Elements of 3d series,
Complex Formation

Start Quiz

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

06 : 59



1/10



7 min



Hint

Q : Ti^{3+} salts are purple colored, what is the color of Ti^{4+} salts

A

Colorless

B

Purple

C

Blue

D

Green

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

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4

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6

7

06 : 56



2/10



7 min



Hint

Q : Strength of binding energy of transition elements depends upon

A

No. of electron pairs

B

no. of unpaired electrons

C

no. of neutrons

D

no. of protons

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

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6

7

06 : 54



3/10



7 min



Hint

Q : The transition metal which has only colorless compounds

A

Ti

B

Cr

C

Cu

D

Zn

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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06 : 52



4/10



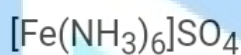
7 min



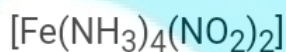
Hint

Q : In which of the following compounds iron has lowest oxidation state

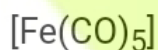
A



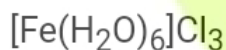
B



C



D



SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

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6

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06 : 49



5/10



7 min



Hint

Q : When a complex absorb blue light then its colour most probably will be

A

Green

B

Red

C

Yellow

D

Orange

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 46



6/10



7 min



Hint

Q : Which is bidentate neutral ligand

A

Carbonato

B

Oxalato

C

Acetato

D

Hydrazine

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

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6

7

06 : 44



7/10



7 min



Hint

Q : The name of $\text{Na}_4[\text{Fe}(\text{CN})_6]$ according to IUPAC system is:

A

Tetrasodium hexacyano ferrate(II)

B

Sodium hexacyano Iron(III)

C

Sodium hexacyano ferrate(II)

D

Sodium hexacyano Iron(II)

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

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4

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7

06 : 40



8/10



7 min



Hint

Q : Potassium hexacyano ferrate (II) is

A



B



C

both a & b

D

none of these

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

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10

06 : 37



9/10



7 min



Hint

Q : The geometry of PCl_5 is

A

Tetrahedral

B

Square planer

C

Trigonal bipyramidal

D

Octahedral

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

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10

06 : 34



10/10



7 min



Hint

Q : The coordination number of Platinum in $[\text{Pt}(\text{C}_2\text{O}_4)_2]$ is

A

2

B

6

C

4

D

0

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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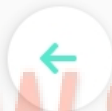
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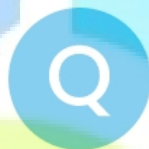
9

10



QUIZ RESULT

Practice Test-2(Transition Elements)



10



7 min



01-May-2021



0 sec



0/10



0.0%

SAEED MDCAT

Result Detail

SAEED MDCAT TEAM



SAEEDMDCAT





Practice Test-2(Transition Elements)



Correct



Unattempted



Incorrect



1/10

Q : Ti^{3+} salts are purple colored, what is the color of Ti^{4+} salts



Colorless



Purple



Blue



Green

Explanation

SAEED MDCAT TEAM

Ti^{4+} has no electrons in d – subshell. For the appearance of color there should be partially filled d-subshell

1

2

3

4

5

6

7



Practice Test-2(Transition Elements)



Correct



Unattempted



Incorrect



2/10

Q : Strength of binding energy of transition elements depends upon

A

No. of electron pairs

B

no. of unpaired electrons

C

no. of neutrons

D

no. of protons

Explanation

SAEED MDCAT TEAM

Binding energy is directly related to no. of unpaired electrons



SAEEDMDCAT

1

2

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7



Practice Test-2(Transition Elements)



Correct



Unattempted



Incorrect



3/10

Q : The transition metal which has only colorless compounds

A

Ti

B

Cr

C

Cu

D

Zn

Explanation

SAEED MDCAT TEAM

Zn have completely filled d-subshell



SAEEDMDCAT

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Practice Test-2(Transition Elements)



Correct



Unattempted



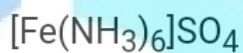
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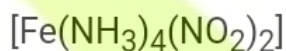
4/10

Q : In which of the following compounds iron has lowest oxidation state

A



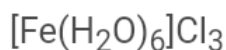
B



C



D



Explanation

CO is neutral ligand, So, oxidation state of Fe in $[\text{Fe}(\text{CO})_5]$ is zero

1

2

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4

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6

7



Practice Test-2(Transition Elements)



Correct



Unattempted



Incorrect



5/10

Q : When a complex absorb blue light then its colour most probably will be



Green



Red



Yellow



Orange

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice Test-2(Transition Elements)



Correct



Unattempted



Incorrect



6/10

Q : Which is bidentate neutral ligand

A

Carbonato

B

Oxalato

C

Acetato

D

Hydrazine

Explanation

Hydrazine ($\text{H}_2\text{N}-\text{NH}_2$) is bi-dentate as well as neutral ligand



SAEEDMDCAT

1

2

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4

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6

7



Practice Test-2(Transition Elements)



Correct



Unattempted



Incorrect



7/10

Q : The name of $\text{Na}_4[\text{Fe}(\text{CN})_6]$ according to IUPAC system is:

A

Tetrasodium hexacyano ferrate(II)

B

Sodium hexacyano Iron(III)

C

Sodium hexacyano ferrate(II)

D

Sodium hexacyano Iron(II)

Explanation

The name of $\text{Na}_4[\text{Fe}(\text{CN})_6]$ according to IUPAC system is sodium hexacyano ferrate(II).

4

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Practice Test-2(Transition Elements)



Correct



Unattempted



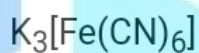
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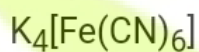
8/10

Q : Potassium hexacyano ferrate (II) is

A



B



C

both a & b

D

none of these

Explanation

Oxidation state of iron is II



SAEEDMDCAT

4

5

6

7

8

9

10



Practice Test-2(Transition Elements)



Correct



Unattempted



Incorrect



9/10

Q : The geometry of PCl_5 is

A

Tetrahedral

B

Square planer

C

Trigonal bipyramidal

D

Octahedral

Explanation

It contain dsp^3 hybridization and hence trigonal bipyramidal.



SAEEDMDCAT

4

5

6

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9

10



Practice Test-2(Transition Elements)



Correct



Unattempted



Incorrect



10/10

Q : The coordination number of Platinum in $[\text{Pt}(\text{C}_2\text{O}_4)_2]$ is

A

2

B

6

C

4

D

0

Explanation

Explanation: C_2O_4^- is bidentate ligand, it donates 2 electron pair to central metal atom. So, two C_2O_4^- groups donate total 4 electron pairs to Pt. Thus, coordination number is 4

4

5

6

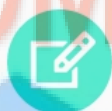
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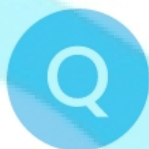
10

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QUIZZES

Practice Test-1(Environmental Chemistry)



10 Questions



7 min

Topics

Air Pollutants

Start Quiz

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

06 : 58



1/10



7 min



Hint

Q : On global scale most of SO_2 is produced by

A

Volcanoes

B

Crude oil

C

Petroleum industry

D

Combustion of coal

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 56



2/10



7 min



Hint

Q : The gas that binds strongly with haemoglobin is

A

Carbon monoxide

B

Methane

C

Carbon dioxide

D

Nitrogen dioxide

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

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7

06 : 54



3/10



7 min



Hint

Q : Which of the following is incorrect statement

A

The residence time of NO in the atmosphere is 3 days

B

The burning of fuel in presence of air in internal combustion engine also produces NO

C

Gasoline is source of NO emission into atmosphere

D

The anaerobic bacterial action produces NO_x mainly NO

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

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4

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6

7

06 : 52



4/10



7 min



Hint

Q : Which of the following secondary pollutant is carried down in the form of dust and rain

A

SO_2

B

SO_3

C

NO_2

D

HNO_3

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 50



5/10



7 min



Hint

Q : Following are sources of emission of hydrocarbons into atmosphere by human activities except

A

Paddy fields

B

Coal

C

Solvent evaporator

D

Incinerators

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 47



6/10



7 min



Hint

Q : Photochemical smog is also known as

A

Redox smog

B

Reducing smog

C

Oxidizing smog

D

All of these

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 45



7/10



7 min



Hint

Q : Which one of the following is not mainly responsible for acid rain

A

CO_2

B

SO_3

C

SO_2

D

NO_2

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 42



8/10



7 min



Hint

Q : The gas which is three times lighter than air



CO₂



NO



CO



N₂

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

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7

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9

10

06 : 40



9/10



7 min



Hint

Q : Chlorofluorocarbons (CFCs) are _____ in the troposphere

A

Diffused

B

Active

C

Inert

D

Decomposed

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10

06 : 38



10/10



7 min



Hint

Q : Ozone is harmful in

A

Mesosphere

B

Troposphere

C

Stratosphere

D

Thermosphere

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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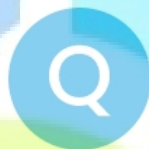
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QUIZ RESULT

Practice Test-1(Environmental Chemistry)



10



7 min



01-May-2021



0 sec



0/10



0.0%

SAEED MDCAT

Result Detail

SAEED MDCAT TEAM



SAEEDMDCAT





Practice Test-1(Environmental Chemistry)



Correct



Unattempted



Incorrect



1/10

Q : On global scale most of SO_2 is produced by



Volcanoes



Crude oil



Petroleum industry



Combustion of coal

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice Test-1(Environmental Chemistry)



Correct



Unattempted



Incorrect



2/10

Q : The gas that binds strongly with haemoglobin is



Carbon monoxide



Methane



Carbon dioxide



Nitrogen dioxide

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice Test-1(Environmental Chemistry)



Correct



Unattempted



Incorrect



3/10

Q : Which of the following is incorrect statement



The residence time of NO in the atmosphere is 3 days



The burning of fuel in presence of air in internal combustion engine also produces NO



Gasoline is source of NO emission into atmosphere



The anaerobic bacterial action produces NO_x mainly NO

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice Test-1(Environmental Chemistry)



Correct



Unattempted



Incorrect



4/10

Q : Which of the following secondary pollutant is carried down in the form of dust and rain

A

SO_2

B

SO_3

C

NO_2

D

HNO_3

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice Test-1 (Environmental Chemistry)



Correct



Unattempted



Incorrect



5/10

Q : Following are sources of emission of hydrocarbons into atmosphere by human activities except

A

Paddy fields

B

Coal

C

Solvent evaporator

D

Incinerators

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice Test-1(Environmental Chemistry)



Correct



Unattempted



Incorrect



6/10

Q : Photochemical smog is also known as

A

Redox smog

B

Reducing smog

C

Oxidizing smog

D

All of these

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice Test-1(Environmental Chemistry)



Correct



Unattempted



Incorrect



7/10

Q : Which one of the following is not mainly responsible for acid rain



CO₂



SO₃



SO₂



NO₂

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice Test-1(Environmental Chemistry)



Correct



Unattempted



Incorrect



8/10

Q : The gas which is three times lighter than air

A

CO₂

B

NO

C

CO

D

N₂

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10



Practice Test-1 (Environmental Chemistry)



Correct



Unattempted



Incorrect



9/10

Q : Chlorofluorocarbons (CFCs) are _____ in the troposphere

A

Diffused

B

Active

C

Inert

D

Decomposed

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10



Practice Test-1(Environmental Chemistry)



Correct



Unattempted



Incorrect



10/10

Q : Ozone is harmful in

A

Mesosphere

B

Troposphere

C

Stratosphere

D

Thermosphere

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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